5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

but which, as Williams says in his discussion on Orokaiva domestic animals (1930: 60–3), are all ultimately destined for the pot. The fowl population has likewise remained more or less constant for some time (e.g. about 30 in Inonda, 40 in Sivepe). The birds are useful not only as a source of meat and eggs, but also of cockerel feathers which are plucked and used for decoration on headdresses, spears, etc. Unlike the dogs, the fowls are no longer a purely indigenous variety: they have been crossed with Rhode Island Reds introduced in the 1950s.

A few years before I did my fieldwork, the government began a vigorous campaign to eliminate pig husbandry from Orokaiva villages, in an attempt to improve village hygiene. Though this campaign generally was not very successful, domestic pigs had all but disappeared from the villages where I stayed. Like the other domestic animals they were left to forage for food most of the time but were also fed with pieces of taro and other left-over food, as well as pawpaw, coconut, etc. They mostly slept under the houses, but were free to roam. Males were castrated and females were fertilised by boars roaming in the bush. A close *quasi*-kinship link was assumed to exist between the pig and its keepers, and this was emphasised by taboos on eating a pig reared by a close relative. Techniques of domestication will be discussed below.

Horticulture. The Orokaiva word *pure* has at least two important meanings: 'work' and 'garden'. As elsewhere in Papua–New Guinea, the garden is a centre of sexual, social, religious as well as industrial activity.

The main product is taro which occupies perhaps nine tenths of the area. But a great variety of other plants are also found: banana, sugar-cane, edible pitpit, German taro (*xantosoma*), a few introduced vegetables such as pineapples, tomatoes, beans, and some sweet potato. Some trees may also be planted though these will not bear until long after the garden has been abandoned: breadfruit, *tauga*, coconut, areca. In addition there are always some herbs and medicines, and if the gardener is a professional medicine man there will be a great many of these. Yams are grown in separate gardens.

Very full data on the size of these gardens have been provided by Crocombe and Hogbin (1963) and Rimoldi (1966). A household tends to establish something like one and a half to two acres of garden per year. A garden is never used for more than one taro season, but as planting and consumption of the taro each tend to be stretched over most of a year, almost two years elapse between the clearing and final abandonment. This gives time for the bananas and sugar-cane to reach maturity too. Once a garden is abandoned, it is not used again for at least eight years or so. The usual swidden agriculture techniques are used, burning, clearing, careful removal of 'rubbish' remaining after the burning process, planting with a digging stick, periodic attention to weeding and heaping up of earth around growing taro, removal of corm-bearing bases of petioles of mature taro for removal and planting in a new garden. The Orokaiva practise no irrigation, no form of terracing or drainage, no manuring, no measures against parasites. Sometimes a fence is made out of tree trunks to keep pigs from breaking in. This is usually done only after a pig has made its first expedition, and only on the side where the pig entered.

While planting and harvesting proceeds almost throughout the year there are important seasonal variations that should not be ignored. There is a dry and a

[TEXT CONTINUED ON PAGE 22]

755 medicine, though by no means always. Bandages were especially popular; they were worn as status symbols and as dancing ornaments. Nurses and
752 physicians are regarded with affection; any person who obviously wants to be helpful would be treated thus, and it has of course been noticed
554 that they relieve a great deal of discomfort even though Western theories of the causation of disease are treated sceptically and mostly
753 explained away because the nurses and physicians usually do not understand the fine points of sorcery; only the Orokaiva have this knowledge.

Data on the eruption period do not suggest that the attitude
731 to medicine was different then to what it is today. There were,
743 however, fewer facilities: the hospitals were smaller, there was less available transport to reach them with, the chain of aid posts built by the Higaturu Council did not yet exist, so that outside the government hospital, the only facilities were the mission stations.

The evacuation camps provided a good opportunity to put a
744 public health programme into operation, and this opportunity was taken. No regular anti-malarial preventive treatment was given because this clearly could not have been continued after the camps were closed--and it was feared that anti-malarials might lower natural resistance. On the other hand, everyone at Ilimo was given prophylactic treatment against hookworm. Unfortunately, this medicine had the effect of "making people feel a little drunk." One man, the sole male survivor of a large family killed during the eruption, went berserk through the medicine and caused a near riot. Mr. Kaad then abandoned his campaign against hookworm at Ilimo, reviving it later, in the Saiho period. Prophylactic treatment against hookworm has not been continued because reinfection constantly occurs. The camps provided a practical object lesson on the Western ideas of treating waste matters, sanitation and water supplies, a lesson which no doubt bore fruit some years later, when the Higaturu Council had money and an ideological base for bringing about such innovations. Finally, the introduction of sweet potatoes
[242] at Ilimo, by means of distribution of sample tubers and seeds and the
[146] teaching of methods of cultivation, had a definite public health objective: it was done because the yellow and red varieties of sweet potato are particularly rich in vitamins in which Orokaiva diet is supposed to be often deficient. Today, some of this sweet potato is grown in Sivepo, though on a small scale, while plantings in Inonda are somewhat more extensive. (The sweet potatoes resist drought better than taro.)

The most active public health programmes I saw in 1966-67 were directed at: malaria control, infant health, village hygiene. The key figure in public health improvement at Sivepo was the health inspector employed by the Higaturu Coincil. This man was expected to cover the whole of the Council area, and spent much of his time touring villages. As his home was at Garombi and he had many relatives in Sivepo, he made frequent visits. Sivepo caused him little trouble, he told me, as waste matter was thrown into deep holes, everyone had a lavatory and the place was kept clean in the prescribed way. On

744 one occasion he did complain about weeds growing in one part of the village; he was also involved in a complaint against two men who were living in condemned houses. The first time I saw him in the village he gave an illustrated lecture on the causes of malaria and methods of malaria control. This was received in much the same spirit as any other metaphysical speculations, which people are not yet ready to share.

There is in progress in the Territory a malaria eradication campaign, for which numerous Papuan technicians have been trained and which involves, i.e., the indoors spraying of villages with DDT. While I did not see any such teams in action, I did notice that anti-malarial injections were standard treatment at the infant health clinic that was held close to Sivepe once a month. Attendance at these clinics was general for all mothers with children of pre-school age. Apart from anti-malarial injections, the nurses offered treatment for sores and other minor ailments; they weighed babies and they took seriously ill young children with them to the hospital. While it was easy to induce mothers to come, it was harder to gain acceptance for Western ideas when these conflicted with Orokaiva ones. This applied especially to child nutrition.

The health authorities had successfully campaigned against the [853] Orokaiva custom of premasticating food given to babies; mothers had stopped doing this, as it was considered uncivilised. On the other hand, nobody obeyed the instruction to mash taro before it was given [824] to babies. The mashing of taro offended the spirit of the taro; it was considered out of the question. An alternative suggestion was to give babies pawpaw, considered by nutritionists to be an excellent [262] baby food. But this food was also avoided by Orokaiva, as it was thought to cause scabies. The result was that Orokaiva babies tended to go through a period of critical malnutrition after weaning and before solid taro can be digested. Our own suggestion to Orokaiva mothers--to go back to premastication--was naturally considered to be no more than a bad joke.

Section 4: Social Services: Education

871 The education system, like the public health system consists
797 of a government sector which is responsible for the bulk of education expenditure and a mission sector which is responsible for the majority of children. In 1965, the mission educated some 65% of the primary school pupils of Papua and over 60% of all pupils. Mission expenditure from its own funds was given in the Territory of Papua Report (1966: 99) as 8.6% of total expenditure on education. In the Northern District, there were four administration primary schools for Papuans (2,403 pupils in 1967) and 54 mission primary schools (8,547 pupils in 1967). The breakdown (see Table 14)[A] shows that schooling generally continues

A [See Cat. 116, p. 219--Analyst]

TABLE 13

744

TOTAL EXPENDITURE ON PUBLIC HEALTH
IN THE TERRITORY OF PAPUA DURING THE
YEAR ENDED 30TH JUNE 1965

(Source: Territory of Papua Report for 1964-1965: 235)

Administration	$	$
Public Health - General	2,902,012	
Medical Aid to Missions	94,698	
Maintenance of Hospitals, Engineering, Water Supply and Sewerage	320,988	
[364] Construction of Water Supply, Sewerage, Hospitals and Ancillary Buildings	1,098,416	
Building Grants-in-Aid to Missions	31,220	
Purchase of Hospital and Medical Equipment	81,730	
	---	4,529,064
Missions (Ascertainable Expenditure from their Own Funds)		90,012
Local Government Councils (From their Own Funds)		44,108
TOTAL		4,663,194